

### REMARKS/ARGUMENTS

Favorable reconsideration of this application, in view of the following remarks, is respectfully requested.

Claims 1-27 are pending in this application.

In the outstanding Office Action, Claims 1-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable<sup>1</sup> over Nakamura et al. (U.S. Patent Application Publication No. 2002/0181738 A1, hereinafter "Nakamura") in view of Wang et al. (U.S. Patent No. 6,526,155 B1, hereinafter "Wang").

The Office Action asserts:

The Nakamura and Wang reference are both in the same field of endeavor of watermark embedding. It, therefore, would have been obvious to one of ordinary skill in the art at the time of the invention to modify the watermarking embedding system of Nakamura to include synthesizing information which is image information data as taught by Wang because "the watermark is visually apparent within the output image and is very difficult to remove" (Wang, column 1, lines 66-67). It also would have been obvious to one of ordinary skill in the art at the time of the invention to modify the watermarking embedding system of Nakamura to include a synthesizing image information data holding means for holding a plurality of the synthesizing image information data as taught by Wang to provide storage for a variety of embedding information to allow a user to select "a watermark stored in the watermark storage device" (Wang, column 3, lines 65-67).

Applicant respectfully disagrees.

MPEP § 2143.01(II) states that "where the teachings of the prior art conflict, the examiner must weigh the suggestive power of each reference." The MPEP adds "[w]here the teachings of two or more prior art references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree

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<sup>1</sup> The Office Action uses the words "anticipated by" which is understood to be a typographical error. It is understood that it should have said "unpatentable over."

to which one reference might accurately discredit another. *In re Young*, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991).”

MPEP § 2143.01(V) states “the proposed modification cannot render the prior art unsatisfactory for its intended purpose.” The MPEP adds “[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).”

Finally, MPEP § 2143.01(VI) states “the proposed modification cannot change the principle of operation of a reference.” The MPEP adds “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).”

Nakamura is directed to a technology for embedding “additional information that cannot be recognized in normal observation conditions, and a program storage medium and a program used therewith.”<sup>2</sup> Nakamura is concerned with “digital recording/playback devices that eliminate problems caused by repeatedly executing playback processing, such as picture quality deterioration and sound quality deterioration, have come into widespread use.”<sup>3</sup>

Nakamura states:

It is impossible to view or perceive a watermark in normal conditions for playing back content (picture data or audio data). Embedding and detection of the watermark can be performed only by executing a particular algorithm or by a particular device. When content is processed by a device such as a receiver or a recording/playback unit, by detecting the watermark, and controlling the processing in accordance with the watermark, reliable control is implemented.<sup>4</sup>

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<sup>2</sup> Paragraph [0002].

<sup>3</sup> Paragraph [0004].

<sup>4</sup> Paragraph [0010].

Therefore, Nakamura is directed towards “[a] picture format converting process according to the present invention that is applied to embedding and detection of digital watermarks.”<sup>5</sup>

Thus, Nakamura is concerned with the embedding of invisible digital watermarks as well as eliminating picture and sound quality deterioration.

Wang describes systems and methods for embedding visible watermarks in images or documents.<sup>6</sup> Wang considers such variables as gray-scale range<sup>7</sup> and color value<sup>8</sup> to determine what effect the watermark will have on the appearance of the visible watermark in the output halftoned image, to determine whether the visible watermark will appear to be brighter or darker than the background value of the image.<sup>9</sup> As shown in FIG. 1, a watermark 110 is present within the image.

It is respectfully submitted that the teachings of Wang are in conflict with the teachings of Nakamura. That is, the proposed modification of Nakamura to include the teachings of Wang will render Nakamura unsatisfactory for its intended purpose and will change the principle of operation of Nakamura. That is because, as illustrated in Wang FIG. 1, the presence of a visible watermark causes significant deterioration in picture quality. That is, a picture, whether video or still, that includes a visible watermark has a deteriorated quality which can render the picture unsuitable for its intended purpose. Thus, Nakamura would not have looked to Wang for a modification of the watermarking embedding system as asserted in the Office Action. Therefore, it is respectfully submitted that there is no teaching, suggestion, motivation, or other logical reason to modify Nakamura to include the teachings of Wang because such an inclusion would result in a deterioration of picture quality unacceptable to Nakamura.

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<sup>5</sup> Paragraph [0144].

<sup>6</sup> Column 1, lines 46-47.

<sup>7</sup> Column 4, line 8.

<sup>8</sup> Column 4, line 14.

<sup>9</sup> Column 4, lines 30-34.

The Office Action asserts at the top of page 3 thereof:

As discussed in paragraph 10 of the Nakamura reference, the watermark should be impossible to view or perceive a watermark in normal conditions for playing back content. This does not preclude the use of an embedded visible watermark by any means as visible watermarks are commonly used to protect various types of media which in their particular placement and due to visual limitations of viewers watching a movie are not noticeable to the view. This is a widely-used concept in the field of watermark embedding of films for copyright purposes and is known to those of ordinary skill in this art.

It is respectfully submitted that the above paragraph is internally inconsistent. That is, it is inconsistent to express recognition that Nakamura describes that the watermark should be impossible to view or perceive in normal conditions and at the same time assert that this does not preclude the use of an embedded watermark by any means such as a visible watermark. For the reasons argued above it is contrary to the procedures described in the MPEP to ignore the express intention of Nakamura for embedding in a picture a digital watermark “(also called ‘data hiding’)”.<sup>10</sup> And the further requirement in Nakamura of a “digital watermark pattern in which the sum of values set for the pixels of the digital watermark pattern is zero.”<sup>11</sup> It is respectfully submitted that the sum of values set for the pixels of a visible digital watermark pattern cannot be zero. Therefore, it is respectfully submitted that the intentions and purpose of Nakamura cannot be ignored.

Accordingly, it is respectfully requested that the rejection of Claims 1-27 be reconsidered and withdrawn, and that Claims 1-27 be found allowable.

Consequently, for the reasons discussed in detail above, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

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<sup>10</sup> Paragraph [0002].

<sup>11</sup> Claim 3.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below-listed telephone number.

Respectfully submitted,

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A handwritten signature in black ink, reading "Michael L. Gellner". The signature is written in a cursive style with a horizontal line underneath the name.

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